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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/990,381

11/23/2001

Loki Jorgenson

J141 0003 GNM/sks

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7590

08/23/2005

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EXAMINER

GREY, CHRISTOPHER P

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/990,381	Applicant(s) JORGENSEN, LOKI	
	Examiner Christopher P. Grey	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as his invention.

1. Claim 18 is rejected under 35 U.S.C. 112 second paragraph.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 states, "the other of the first and second sizes", however, does not define what constitutes as the other.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1, 26, 29, 37, 38, 45, 46, 55, 56, 57, 60-67 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. (US 20020080726), hereinafter referred to as Klassen, in view of Cahn (US 2003/0218983).

Claim 1, 45, 37, 56 Klassen discloses an apparent network spend application (ANSA) for acquiring test data regarding propagation of test packets along the path, creating a test signature from the test data (paragraph 0061-0080 and 0084).

Klassen does not specifically disclose providing a plurality of example signatures, each of the example signatures corresponding to a network condition, comparing the test signature to the example signatures, and identifying at least one of the example signatures which matches the test signature according to a match criterion.

Klassen discloses providing a plurality of test signatures each of the example signatures corresponding to a network condition (paragraphs 0061-0080).

Cahn discloses providing a plurality of example signatures (benchmarks), each of the example signatures corresponding to a network condition (paragraph 0024 and 0025) stored within a table (see fig 4).

Cahn discloses comparing the test signature to the example signatures (paragraph 0025 and element 140 in fig 6).

Cahn discloses identifying at least one of the example signatures that matches the test signature according to a match criterion (paragraph 0026).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the ANSA as disclosed by Klassen within the computer or server as disclosed by Cahn. The motivation for this combination is to allow a customer or provider to adjust the access connections based on testing results (see abstract).

Claim 26 Klassen discloses test data including data regarding the propagation of datagrams along the test path (paragraph 0121).

Claim 29 Klassen discloses transmitting echo packets, where these packets traverse the network bi-directionally (paragraph 0024).

Claim 38 Klassen does not disclose means for identifying at least one of the example signatures that matches the test signature comprising an expert system and rule base.

Cahn discloses setting up a table of comparison, determining a condition that matches test data, and creating a paradigm for devising possible remedies (paragraph 0026).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Klassen, to include the comparison mechanism as disclosed by Cahn, using test data as disclosed by Klassen. The motivation for this modification is to evaluate network conditions and improve network conditions.

Claim 46 Klassen discloses an apparent network spend application (ANSA) as disclosed in the rejection of claim 45.

Klassen does not specifically disclose the test signature creation mechanism, comparison system and selections system each comprising a set of software instructions.

Cahn discloses a number of tests being implemented using software instructions (paragraph 0023).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the testing software as disclosed by Cahn, with the ANSA as disclosed by Klassen, allowing the test data to be compared to benchmarks. The motivation for this modification is to evaluate the conditions over a network.

Claim 55 Klassen does not specifically disclose a set of weighting coefficients, fitting coefficients, or both weighting and fitting coefficients associated with one or more of the example signatures.

Cahn discloses benchmarks (paragraph 0024), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that a benchmark may be arrived at from using weighted coefficients.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the ANSA as disclosed by Klassen within the computer or server as disclosed by Cahn. The motivation for this combination is to allow a customer or provider to adjust the access connections based on testing results (see abstract).

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Claim 57 Klassen discloses the test signature comprising additional measures (paragraph 0062-0080).

Claim 60 Klassen discloses additional measures being based on information regarding network topology including one or more of; maximum transfer unit (paragraphs 0091 and 0045), RMON message or SNMP message.

Claim 61 Klassen discloses information regarding one or more of; connectivity, maximum transfer unit (paragraphs 0091 and 0045); network device responsivity; and time for test packet to traverse the path (paragraph 0069, 0070 and 0063).

Claim 62 Klassen discloses information regarding one or more of; measured MTU, reported MTU (paragraph 0091 and 0045), hop number and hop address (paragraph 0045).

Claim 63 Klassen discloses the test data comprising information regarding derivatives of the information (paragraph 0017 and 0018).

Claim 64 Klassen discloses the test signature comprising round trip time (paragraph 0063).

Claim 65 Klassen discloses computing network throughput using a number of other parameters (paragraph 0061).

Claim 66 Klassen discloses the test packet being sent in an Internet network (paragraph 0027 and 0052), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that TCP or UDP protocol is used.

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Claim 67 Klassen discloses the transmission of ECHO packets (paragraph 0023), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that these packets are returned/echoed from an end host.

Claim 69 Klassen discloses non-echoed packets being sent and also sending one-way traffic bursts of test packets (paragraph 0023, 0024 and 0081)

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3. Claims 2, 3, 4, 15, 16, 17, 18, 19, 20, 33, 34, 42, 43, 44, 47, 48, 49, 51, 52, 53, 58, 68, 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. (US 20020080726), hereinafter referred to as Klassen, in view of Cahn (US 2003/0218983) in further view of Chen (US 5831972).

Claim 2, 42 The combined teachings of Klassen and Cahn do not specifically disclose computing a similarity measure between the test signature and each example signature.

Chen discloses a Network management system (Col 3 lines 50-Col 4 line 3) for calculating an expected quality of service parameters over a network and comparing the expected quality of service, by measuring that value up to the specified quality of service parameters (Col 2 lines 45-60), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that a similarity measure is taken (elements 49, 51 and 53).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen and Cahn, with a network management system as disclosed by Chen. The motivation for this modification is to measure a degree of similarity between the example signature and the test signature so that any necessary adjustments may be made based on the measurement (see abstract).

Claim 3, 43 Klassen discloses the test signature comprising a plurality of values (paragraph 0061-0080).

Klassen does not specifically disclose each of the example signatures comprising a set of corresponding values, and computing the similarity measure between the test

signature and an example signature comprising computing a fit between each of the values of the test signature and the corresponding value of the example signature.

Cahn discloses each of the example signatures comprising a set of corresponding values (paragraph 0025 and fig 4).

Cahn does not specifically disclose computing the similarity measure between the test signature and an example signature comprising computing a fit between each of the values of the test signature and the corresponding value of the example signature.

Chen discloses a Network management system (Col 3 lines 50-Col 4 line 3) for calculating an expected quality of service parameters over a network and comparing the expected quality of service, by measuring that value up to the specified quality of service parameters (Col 2 lines 45-60).

Chen discloses computing a fit between each of the values of the test signature and the corresponding value of the example signature (elements 49, 51 and 53), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that the expected value is compared to the specified value to determine whether the value falls/fits above or below the specified value.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen and Cahn, with a network management system as disclosed by Chen. The motivation for this modification is to measure a degree of similarity between the example signature and the test signature so that any necessary adjustments may be made based on the measurement (see abstract).

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Claim 4 The combined teachings of Klassen and Cahn do not specifically disclose evaluating a function associated with the value.

Chen discloses evaluating a function associated with the value (elements 49, 51 and 53 and (Col 11 lines 25-51).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen and Cahn, with a network management system as disclosed by Chen. The motivation for this modification is to measure a degree of similarity between the example signature and the test signature so that any necessary adjustments may be made based on the measurement (see abstract).

Claim 15, 16, 47, 48, 68, 70 Klassen discloses the transmission of test packets of different sizes (paragraph 0025 and see paragraph 0011).

Klassen does not specifically disclose packet loss statistics.

Chen discloses lost cell parameters (Col 2 lines 61-Col 3 lines4).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the parameters being monitored as disclosed by Klassen, to include cell loss information as disclosed by Chen. The motivation for this modification is to maintain a quality of service (see title).

Claim 17 Klassen discloses the transmission of test packets of different sizes (paragraph 0025).

Klassen discloses the claimed invention except for one of the sizes not being more than three times a minimum packet size for the path.

It would have been an obvious matter of design choice to have the size not being more than three times a minimum packet size for a path, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Claim 18, 19 Klassen discloses the transmission of long packets (paragraph 0025).

Klassen discloses the claimed invention except for one of the first and second sizes is within 10% of a maximum packet size for the path. It would have been obvious to one of the ordinary skill in the art at the time of the invention was made to make one of the first and second sizes is within 10% of a maximum packet size for the path, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claim 20, 49, 51, 52 Klassen discloses transmitting three burst of packets.

The combined teachings of Klassen, Cahn and Chen disclose packet loss statistics as disclosed in the rejection of claim 15.

Klassen discloses the claimed invention except for the third size being intermediate to the first and second size.

It would have been an obvious matter of design choice to have the third size being intermediate to the first and second size, since such a modification would have involved a mere change in the size of a component. A change in size is generally

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recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Claim 33, 34 Klassen discloses the transmission of burst of test packets of different sizes (paragraph 0025).

Klassen does not specifically disclose the test signature comprising a first moment of packet losses within burst of packets.

Chen discloses packet loss parameters depicting moments of packet losses (Col 2 lines 61-Col 3 lines 4).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the parameters being monitored as disclosed by Klassen, to include cell loss information as disclosed by Chen. The motivation for this modification is to maintain a quality of service (see title).

Claim 44 The combined teachings of Klassen and Cahn do not specifically disclose the means for comparing the test signature to the example signature comprising a neural network.

Chen discloses the means for comparing being within a SONET network (Col 2 lines 45-60).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen and Cahn within a SONET environment as disclosed by Chen.

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Claim 53 Klassen discloses sending sequences of test packet over the network (paragraph 0007) , where it would have been obvious to one of the ordinary skill in the art at the time of the invention that a packet sequencer would perform this function.

Claim 58 Klassen discloses transmitting bursts of packets (paragraph 0011).

Klassen discloses other statistics relating to the propagation of test packets (0062-0080).

Klassen does not specifically disclose measures of packet or burst loss statistics.

Chen discloses lost cell parameters (Col 2 lines 61-Col 3 lines4).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the parameters being monitored as disclosed by Klassen, to include cell loss information as disclosed by Chen. The motivation for this modification is to maintain a quality of service (see title).

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4. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. (US 20020080726), hereinafter referred to as Klassen, in view of Cahn (US 2003/0218983) in further view of Chen (US 5831972) in further view of Schenkel et al. (US 5933416), hereinafter referred to as 'Schenkel'.

Claim 8 The combined teachings of Klassen, Cahn and Chen do not specifically disclose computing a similarity measure by performing a chi-squared calculation.

Schenkel discloses computing a similarity measure by performing a chi-squared calculation (Col 7 lines 65-Col8 lines 23).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen, Cahn and Chen with the Chi squared method employed by the CPU as disclosed by Schenkel. The motivation for this modification is to compute a measure of similarity (Col 1 lines 60-Col 2 line 14).

Claim 9 The combined teachings of Klassen, Cahn and Chen disclose a test and example signature.

The combined teachings of Klassen and Cahn do not disclose normalizing the similarity measures corresponding to the example signatures before identifying at least one of the example signatures that matches the test signature.

Schenkel discloses measuring a similarity measure, and normalizing the similarity measure corresponding to a number of sequences (Col 7 lines 50-58 and Col 11 lines 15-33).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen, Cahn and Chen with the Chi

squared method employed by the CPU as disclosed by Schenkel, where normalization occurs. The motivation for this modification is to compute a measure of similarity (Col 1 lines 60-Col 2 line 14) and for normalizing is to compensate for linear functional differences between two values (Col 7 lines 50-58).

Claim 10 Klassen does not specifically disclose normalizing the similarity measure being based in part upon the similarity measure that would be obtained in a lossless network.

Cahn discloses benchmarks (paragraph 0024), which are values associated with a lossless network.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to apply the similarity measure as disclosed in the rejection of claim 9, between the values obtained for the test packets as disclosed by Klassen, and the benchmarks as disclosed by Cahn. The motivation for this modification is to ultimately allow adjustments to network access connections based on the results of the measure (paragraph 0028).

Claim 11 The combined teachings of Klassen, Cahn and Chen do not specifically disclose normalizing the similarity measure being based in part upon the similarity measure that would be obtained if the test signature and example signature were identical.

Schenkel discloses a value leaving a device being compared to a value arriving at another device, where both values are supposed to be identical, however tend to vary due to the random nature of traffic (Col 1 lines 60-Col 2 lines 14).

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It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen, Cahn and Chen with the Chi squared method employed by the CPU as disclosed by Schenkel. The motivation for this modification is to compute a measure of similarity (Col 1 lines 60-Col 2 line 14).

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5. Claims 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. (US 20020080726), hereinafter referred to as Klassen, in view of Cahn (US 2003/0218983) in further view of Chen (US 5831972) in further view of Schenkel et al. (US 5933416), hereinafter referred to as 'Schenkel', in further view of Beser et al. (US 6754622).

Claim 13, 14 The combined teachings of Klassen, Cahn, Chen and Schenkel do not specifically disclose adjusting one or more of the similarity measures based upon an individual set of rules associated with that similarity measure before identifying at least one of the example signatures which measure the test signature.

Beser discloses sending a request (test packet) to a network device, and receiving an ICMP message indicating that a time has expired without receiving a reply. The ICMP message is used to adjust values within a table (Col 3 lines 9-26).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen, Cahn, Chen and Schenkel with the transmission of ICMP messages as disclosed by Beser. The motivation for this modification is to enable rapid removal of stale network addresses.

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6. Claim 21-25 and 27-28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. (US 20020080726), hereinafter referred to as Klassen, in view of Cahn (US 2003/0218983) in further view of Jagadeesan (US 6930982).

Claim 21, 23, 24, 25 Klassen discloses the transmission of test packets of different sizes (paragraph 0025 and see paragraph 0011).

The combined teachings of Klassen and Cahn do not specifically disclose the test signature comprising a mean packet loss for bursts of packets.

Jagadeesan discloses the average packet loss being computed for a burst of packets (Col 8 lines 15-22 and see fig 5).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen and Cahn to include within the ANSA, a computation of the average packet loss as disclosed by Jagadeesan. The motivation for this modification is to determine the quality of transmission through a network (Col 2 lines 43-52).

Claim 22 The combined teachings of Klassen and Cahn do not specifically disclose determining the mean packet loss.

Jagadeesan discloses computing the average packet loss for T number of packets (Col 8 lines 15-22 and see fig 5).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen and Cahn to include within the ANSA, a computation of the average packet loss as disclosed by Jagadeesan. The

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motivation for this modification is to determine the quality of transmission through a network (Col 2 lines 43-52).

Claim 27, 28 Klassen discloses test data including data regarding the propagation of datagrams along the test path (paragraph 0121).

Klassen discloses the transmission of test packets of different sizes (paragraph 0025).

Klassen does not specifically disclose the test signature comprising packet loss statistics.

Jagadeesan discloses measuring packet loss burstiness (Col 1 lines 10-14 and Col 7 lines 23-30).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen and Kahn to measure packet loss statistics from the test packets. The motivation for this modification is to determine the quality of transmission through a network (Col 2 lines 43-52).

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7. Claims 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. (US 20020080726), hereinafter referred to as Klassen, in view of Cahn (US 2003/0218983) in further view of Chen (US 5831972) in further view of Jagadeesan (US 6930982).

Claim 35 The combined teachings of Klassen, Cahn and Chen do not specifically disclose determining a first moment of packet loss.

Jagadeesan discloses determining a packet loss ratio burst of T packets (Col 8 lines 15-22 and see fig 5).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen and Cahn to include within the ANSA, a computation of the average packet loss as disclosed by Jagadeesan. The motivation for this modification is to determine the quality of transmission through a network (Col 2 lines 43-52).

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8. Claim 30, 39, 40, 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. (US 20020080726), hereinafter referred to as Klassen, in view of Cahn (US 2003/0218983), in further view of Beser et al. (US 6754622).

Claim 30, 39, 40, 59Klassen discloses the packets comprising echo packets (paragraph 0024).

Klassen does not specifically disclose ICMP packets.

Beser discloses a first network device transmitting an ICMP echo packet (Col 3 lines 9-26).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the test packet as disclosed by Klassen to include an ICMP message in order to detect if a second device is active (Col 3 lines 9-26).

9. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. (US 20020080726), hereinafter referred to as Klassen, in view of Cahn (US 2003/0218983) in further view of Chen (US 5831972), in further view of Jagadeesan (US 6930982).

Claim 50 Klassen discloses the transmission of test packets of different sizes (paragraph 0025 and see paragraph 0011).

The combined teachings of Klassen, Cahn and Chen do not specifically disclose the test signature comprising a mean packet loss for bursts of packets.

Jagadeesan discloses the average packet loss being computed for a burst of packets (Col 8 lines 15-22 and see fig 5).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen, Cahn and Chen to include within the ANSA, a computation of the average packet loss as disclosed by Jagadeesan. The motivation for this modification is to determine the quality of transmission through a network (Col 2 lines 43-52).

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10. Claims 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen et al. (US 20020080726), hereinafter referred to as Klassen, in view of Cahn (US 2003/0218983) in further view of Chen (US 5831972) in further view of Beser et al. (US 6754622).

Claim 54 The combined teachings of Klassen, Cahn, Chen and Schenkel do not specifically disclose generating and dispatching onto the path multiple bursts of ICMP ECHO packets.

Beser discloses sending a request (test packet) and ICMP messages to a network device(Col 3 lines 9-26).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Klassen, Cahn, Chen and Schenkel with the transmission of ICMP messages as disclosed by Beser. The motivation for this modification is to enable rapid removal of stale network addresses.

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Allowable Subject Matter

11. Claim 6, 6, 7, 12, 25, 31, 32, 36, 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571)272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Grey
Examiner
Art Unit 2667

C-G
8/22/05

A. Qureshi
AFSAR QURESHI
PRIMARY EXAMINER
8/22/05